

Oregon.—Lakeview, 3d.
Pennsylvania.—Pittsburg and Wilkesbarre, 25th.
Texas.—Abilene and Fort Davis, 6th; San Antonio, 27th; Midland, 29th.
Virginia.—Lynchburg, 22d.
Washington Territory.—Walla Walla, 9th, 29th.
Wisconsin.—Embarras, 21st.
Wyoming.—Fort Bridger, 2d; Fort Laramie, 21st.

SLEET.

Sleet occurred at Pike's Peak, Colorado, on the following dates: 3d, 4th, 6th, 7th, 8th, 11th, 15th, 16th, 17th, 19th, 21st to 24th.

TEMPERATURE OF WATER.

The following table shows the highest and lowest temperatures of water observed at the several stations; the monthly ranges of water temperature; the average depth at which the observations were made; and the mean temperature of the air:

Temperature of water for June, 1886.

Station.	Temperature at bottom.		Range.	Average depth, feet and tenths.	Mean temperature of the air at station.
	Max.	Min.			
Atlantic City, New Jersey	72.0	55.3	16.7	11.0	65.7
Alpena, Michigan	68.3	58.5	9.8	12.7	58.5
Augusta, Georgia	83.0	71.8	11.2	12.3	75.4
Baltimore, Maryland	75.3	66.1	9.2	11.9	69.9
Block Island, Rhode Island	64.3	52.2	12.1	8.5	61.3
Boston, Massachusetts	62.1	55.4	6.7	19.6	63.1
Buffalo, New York	69.0	58.1	10.9	10.0	63.7
Cedar Keys, Florida	86.2	79.9	6.3	8.2	80.4
Charleston, South Carolina	81.8	74.9	6.9	38.2	77.3
Chicago, Illinois	69.2	57.1	12.1	9.1	66.0
Chincoteague, Virginia	79.5	68.3	11.2	2.9	68.9
Cleveland, Ohio	73.0	64.0	9.0	14.0	65.5
Detroit, Michigan	67.8	57.1	10.7	27.0	66.8
Duluth, Minnesota	63.1	38.7	24.4	10.2	57.6
Eastport, Maine	46.7	42.0	4.7	16.4	54.9
Escanaba, Michigan	63.9	49.4	14.5	18.7	60.0
Galveston, Texas	87.5	80.4	7.1	15.1	80.3
Grand Haven, Michigan	75.4	60.5	14.9	19.0	61.0
Indianola, Texas	87.4	79.5	7.9	18.0	80.7
Jacksonville, Florida	88.5	84.0	4.5	19.4	84.7
Key West, Florida	63.1	48.9	14.2	10.0	55.2
Mackinaw City, Michigan	79.6	74.1	5.5	11.9	75.2
Marquette, Michigan	53.3	44.4	8.9	12.0	56.2
Milwaukee, Wisconsin	82.5	79.0	3.5	17.9	77.9
Mobile, Alabama	69.6	61.5	8.1	16.6	63.1
New Haven, Connecticut	62.9	53.5	9.4	13.1	63.1
New London, Connecticut	69.5	57.2	12.3	16.3	65.6
New York City	70.4	69.3	7.1	16.2	71.3
Norfolk, Virginia	84.0	74.5	9.5	17.7	80.4
Pensacola, Florida	60.6	48.7	11.9	16.7	60.8
Portland, Maine	70.4	64.8	5.6	54.7	62.9
Sandy Hook, New Jersey	77.5	67.0	10.8	11.0	66.3
San Francisco, California	67.3	59.2	8.1	13.1	64.9
San Jose, California	64.3	55.7	8.6	36.8	57.9
Savannah, Georgia	78.7	73.0	5.7	10.3	79.8
Smithville, North Carolina	81.0	74.5	6.5	10.8	76.0
Toledo, Ohio	77.6	69.3	8.3	13.5	66.6
Wilmington, North Carolina	80.6	72.6	8.0	8.7	75.3

* Observations temporarily suspended. † Record for last 13 days of the month only.

COTTON REGION REPORTS.

In the following table are given the means of the maximum and minimum temperatures and the average rainfall for the cotton districts during the month of June. For the purpose of comparison the averages for these districts during the four preceding years are also given. More than twice the average amount of rain fell in the districts of New Orleans, Vicksburg, and Little Rock; in all the remaining districts a large excess also occurred, except in Galveston district, which shows a small deficiency. The mean of the maximum temperatures was below the average in all districts except Savannah. The mean of the minimum temperatures was above the average in all districts except New Orleans, Memphis, Montgomery, and Mobile. It will be seen from these comparisons that the range of temperature in the cotton districts during June was decidedly smaller than in the same month of former years:

Temperature and rainfall data for the cotton districts, June.

Districts.	Rainfall.		Temperature.						Extremes for June, 1886.				
	Average for June of four preceding years.	Average for June, 1886.	Maximum.			Minimum.							
			Departures.	Mean for June of four pre- ceding years.	Mean for June, 1886.	Departures.	Mean for June of four pre- ceding years.	Mean for June, 1886.					
											Departures.		
	<i>Inch.</i>	<i>Inch.</i>	<i>Inch.</i>										
New Orleans	4.57	11.20	+ 6.63	90.8	89.3	- 1.5	70.5	70.3	- 0.2	103	59		
Savannah	5.74	8.26	+ 2.48	89.5	90.4	+ 0.9	69.2	71.2	+ 2.0	104	62		
Charleston	5.68	9.95	+ 4.28	88.5	87.3	- 1.2	67.1	68.5	+ 1.4	99	60		
Atlanta	4.94	8.29	+ 3.35	87.3	85.6	- 1.7	65.7	67.2	+ 1.5	99	57		
Wilmington	5.04	7.78	+ 2.74	87.7	85.2	- 2.5	64.9	65.4	+ 1.5	95	59		
Memphis	4.36	7.05	+ 2.69	88.0	85.1	- 2.9	66.8	65.4	- 1.4	100	40		
Galveston	*2.68	2.30	- 0.38	*92.2	91.8	- 0.4	*70.2	70.4	+ 0.2	105	51		
Vicksburg	3.20	8.15	+ 4.95	90.5	87.6	- 2.9	68.7	71.0	+ 2.3	97	63		
Montgomery	4.78	7.12	+ 2.34	87.4	88.2	+ 1.2	68.0	65.7	- 2.3	103	45		
Augusta	4.98	8.11	+ 3.13	86.1	86.4	+ 2.7	66.8	67.5	+ 0.7	100	60		
Little Rock	2.76	5.82	+ 3.06	86.7	86.7	- 3.0	65.8	65.3	+ 0.5	100	48		
Mobile	4.03	7.79	+ 3.76	91.8	87.6	- 4.2	69.9	69.1	- 0.8	102	58		

* Average for June of three preceding years.

WINDS.

The most frequent directions of the wind during June, 1886, are shown on chart ii by the arrows flying with the wind; they are also given in the table of miscellaneous meteorological data. The winds for the month were variable over nearly the entire country; the only districts in which they were of a uniform direction were: the west Gulf States, prevailing direction generally from the south; extreme northwest and Missouri Valley, from the north; Montana, from the west; southern California and western Arizona, from the southwest.

HIGH WINDS.

[In miles per hour.]

Wind-velocities of fifty or more miles per hour were reported during the month, as follows:

Mount Washington, New Hampshire, 75, w., 3d; 63, sw., 7th; 86, sw., 8th; 63, nw., 9th; 60, nw., 10th; 70, w., 17th; 94, nw., 18th; 60, nw., 19th; 63, w., 26th; 59, w., 27th; 80, w., 29th; 58, nw., 30th.

Pike's Peak, Colorado, 52, w., 11th; 64, sw., 12th; 59, sw., 13th; 56, sw., 14th.

Galveston, Texas, 50, ne., 14th.

Fort Davis, Texas, 56, ne., 23d.

Cedar Keys, Florida, 68, e., 20th.

Cape Mendocino, California, 52, n., 7th.

LOCAL STORMS AND TORNADOES.

Valley City, Barnes county, Dakota: a tornado passed through this town on the 11th; it was preceded by a brisk, cool wind which was followed by severe thunder and lightning. Considerable damage was done to houses, trees, and telegraph poles. No lives were lost, the inhabitants generally taking refuge in their cellars.

Sacramento, California: on the 12th high northwesterly winds prevailed, at times reaching a velocity of forty-two miles per hour. Considerable damage was done to grain and fruit.

Princeton, California: the high north wind of the 11th, 12th, and 13th did great damage by whipping out standing grain; it was estimated that twenty-five per cent. of the crop was lost.

Virden, Macoupin county, Illinois: a severe wind and rain storm visited this place on the 13th. The rainfall was very heavy and the wind blew a gale, continuing ten or fifteen minutes and doing much damage. Several buildings were injured, the tin roof of a large hall was torn off and thrown into the street, and trees were uprooted. The storm was quite disastrous to wheat and other growing crops.

East Tawas, Iosco county, Michigan: a heavy wind and thunder-storm occurred at this place on the afternoon of the 15th. A block of houses in course of erection was leveled to the ground, and a quantity of lumber was blown from the docks into the bay.